

Rajkumar Pandi

■1611 Gold Avenue SE, Apt 12, Albuquerque, NM 87106 ■5053990297 ■cbvpandiraj@gmail.com

Gitlab repository: https://gitlab.com/raj_pandi
Linkedin profile: <https://www.linkedin.com/in/raj-kumar-pandi-419a5754/>
PGP info: <https://www.cs.unm.edu/~rpandi/RajkumarPandi.asc>

Education

December 2019 (expecting)	Doctor of Philosophy degree in Computer Science, University of New Mexico, Albuquerque
December 2017 (expecting)	Master of Science degree in Computer science, University of New Mexico, Albuquerque
April 2012	Bachelor of Engineering in Computer science, Anna University, Tamil Nadu, India

Work Experience

Graduate Research Assistant (Advisor: Dr. Jed Crandall) Jan. 2015 - present
Department of Computer Science, University of New Mexico

Project Name: Spiral of Silence on gathered Social Networking datasets

- Verified spiral of silence theory with a hypothesis claiming whether people are less likely to discuss opinions on social sites based on their friends agree or disagree with them.
- Utilized PostgreSQL to create, maintain and manage terabytes of datasets.
- Executed PostgreSQL queries using pycogp2.
- Categorized top 10 different entities using Stanford Named Entity recognizer, and examined topics using Structured topical modelling toolbox.
- Coded a hash table in Java to efficiently store the meta data extracted from Stanford NLP classifier.

Project Name: Vector Based Dynamic Information Flow Tracking

- Located the source of cryptographic keys based only on information flow through the VDIFT, a system that aids reverse engineers to track information through indirect flows. This system uses vector of floating point values to avoid the problem of overtainting.
- Wrote make files for codes and compiled them using MinGW.
- Co-developed a VDIFT related IDA pro plugin for Windows.

Project Name: Message Based Web applications Security testing

- Utilized Fiddler, a tool to debug web applications, analyzed all the request and responses sent to the server and look for possibilities of remote code execution, SQL injection or XSS vulnerabilities.

Graduate Research Assistant April 2014 - Dec. 2014

Department of Civil Engineering, University of New Mexico

Project Name: Developed a software "WIM (Weight in motion) data analysis for pavement ME design". Developed three sets of subroutine in C.NET :

- The first set is to check the quality of the classification data collected at WIM sites and also calculate the traffic inputs required in MEPDG (Mechanistic-Empirical Pavement Design Guide).
- The second set applied quality control to the weigh-in-motion data collected.
- The third set developed axle load spectra in a format compatible with MEPDG.

Office Assistant Jan. 2014 - May 2014

University of New Mexico Recreational Services

- Worked in a fast-paced environment with a diverse community

Junior Network Engineer July 2012 - July 2014

Shalini Televisions Network, Chennai, India

- Designed network infrastructure and assigned sub networks over various physical media.
- Gained knowledge in Routed protocol: TCP/IP and Routing protocol: RIP, EIGRP, OSPF

Certifications

- Cisco Certified Network Associate (CCNA).
- Microsoft Certified Information Technology Professional (MCITP).
- CSS corp (a global information and ICT service company) certification exam.

Areas of Interest

- Computer Network and Security.
- Software and Reverse Engineering.

Technical Skills

Programming Skills: Assembly language, C, Bash shell scripts(grep,awk,sed),C.NET, Java, Python, Scala, R

Software Packages: Microsoft Visual Studio 2012 and 2015, Eclipse, Anaconda Python, IDA Pro, Fiddler, Cisco Packet tracer, Wire Shark, MinGW, Android SDK essentials, Logic Analyzer, Stanford NLP toolbox, Radare2, Adobe Photoshop C S6

Operating Systems: Windows XP 7, Windows 2003, 2008 and 2008 R2 Editions, Linux(CentOS, Ubuntu(both desktop and server versions), and Mint)

Database: MySQL and Postgresql

Industrial training

Selected for Battelle Cyber Auto Challenge 2014 at Delphi Corporation, Troy, Michigan.

- Gained hands on experience with various tools such as Vehicle Spy, Logic Analyzer, and OllyDbg
- Learned the type of network found in modern vehicles and diagnostics reverse engineering.
- Got exposure towards the counter measures put in place by automotive OEM's.

Honors and Awards

- University of New Mexico's Amigo Scholarship for Graduate students
- Certified for Responsible Conduct of Research by University of New Mexico
- Offered Red Scholarship for participating in US Cyber Challenge 2017

Activities

- 05/20/2017 Member of Youth Advisory Council with Talking Talons, Albuquerque, NM
- 07/18/2016 Mentored 50 High school students at UNM GenCyber Camp 2016, Albuquerque, NM
- 11/16/2015 Reviewer for NMSC Supercomputing Challenge, Albuquerque, NM
- 02/27/2015 Selected for Rocky Mountains Collegiate Cyber Defense Competition at Regis University, Denver, CO
- 02/04/2014 Treasurer of Network Exploitation Security Team of UNM(<http://nest.unm.edu>)
- 03/10/2010 Member of National Service Scheme in Anna University, India
- 07/06/2009 Secured B2/3 level grade in BULATS English Examination by Anna University